

Amendments to the Specification:

Please replace the following paragraphs [010], [022] and [024] with the following amended paragraphs:

[010] According to still another aspect of the invention, an impedance-controlled write driver circuit is configured such that the head voltage V_h may be described by the formula, $V_h = IW * (Rh + R_{pc}) * Ro / (Ro + Rh + R_{pc})$ $V_h = IW * (Rh + R_{pc} + Ro) / (Rh + R_{pc} + Ro)$, wherein: IW represents a write head current; Rh represents a write head resistance; R_{pc} represents the resistance of the flexible printed circuit; and Ro represents a selected internal reference resistance.

[022] An example of the impedance control circuit architecture for implementing the invention is shown in Figure 2. In this preferred embodiment, impedance control circuitry 20 is shown. The write head 22 is connected to associated preamp circuitry 24 via a flexible printed circuit 26 including two write lines. Data input ports, typically transistors represented by Q1, Q2, Q3, and Q4, are provided for switching writing functions at the head 22 as familiar to those skilled in the arts. Transistors Q1 and Q2, and transistors Q3 and Q4, form differential pair circuits with their common current sources, Iw_2 and Iw_1 , respectively. The impedance control circuitry 20 is preferably included as a portion of the preamp 24 circuitry. It should be understood that the impedance control circuitry 20 is seen in parallel from the point of view of the head 22.

[024] The write driver circuit referred to in Figure 2 is shown in an implementation wherein each of two matched impedance control circuits 20 is provided in a configuration including a resistor 28 having a resistance value of about $R_0/2$ relative to the internal reference resistance R_0 of the write head 22. The resistors 28 are preferably matched in resistance value as closely as feasible and are electrically coupled respectively between nodes A and B of Figure 2 and

ground. Thus, the relationship of the write head 22 and 26 voltage Vh to the write current W IW may be described by the relationship, $Vh = IW * (Rh + Rfpe + Ro) / (Rh + Rfpe) \quad Vh = IW * (Rh + Rfpc) * Ro / (Ro + Rh + Rfpc)$. Although variations in the arrangement of the circuit are possible, a circuit topology described by this equation will not depart from the principles of the invention.